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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/613,741	07/11/2000	Yuji Tsuda	B 422-158	1507

26272 7590 08/25/2004

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EXAMINER

TRAN, NHAN T

ART UNIT PAPER NUMBER

2615

DATE MAILED: 08/25/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/613,741

Applicant(s)

TSUDA ET AL.

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action, or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>14</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings received on 6/4/2004 are accepted by the Examiner. These drawings are Figures 21-28(c).

Response to Arguments

2. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground of rejection.

Information Disclosure Statement

3. The information disclosure statement filed 6/4/2004 with respect to cited reference **JP 63-195315** fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, the reference listed that is **not in the English language**. It has been placed in the application file, but the information referred to therein has not been considered.

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Claim Objections

4. Claim 2 is objected to because of the claim recites the limitation "the first changing speed." There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim recites the limitation "when the state of limitation of the incident light by said ND filter is changed, changes the state of limitation of incident light by said iris at a speed higher than the first changing speed." The limitation is contradictory to what being claimed in the independent claim 1, wherein when the state of limitation of incident light by the ND filter being changed due to the ND filter being inserted into or removed from the optical path, the iris speed is changed to a first speed that is always higher than the other speed.

In view of the above, the following art rejection is applied to claim 2 as best understood in view of the 112 second paragraph rejection above. The claimed limitation of claim 2 is interpreted as same as claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hisama Kenji (JP 09-098322) in view of Mori (US 5,455,685).

Regarding claim 1, Hisama discloses an ND filter (105) which is capable of being inserted into or detached from an optical path, and limits incident light in case of existing on the optical path; an iris (103) which also limits incident light and a changing device (combination of microcomputers 119, 207 and driver 113) which controls the iris. See Figs. 1 & 5; abstract and paragraphs [0007], [0018].

Hisama teaches that the imaging apparatus includes an auto-exposure function (AE) shown in Figs. 1 & 2, paragraph [0021] indicating an inherent analysis of light intensity impinging on the image sensor (CCD 201). However, Hisama fails to teach that the changing device which controls the iris at a first speed in a case that the ND filter is being inserted into the optical path or is being detached from the optical path, and controls the iris at a second speed slower than the first speed in a case that the ND filter is on the optical path.

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It is clearly seen that during the insertion of the ND filter into the optical path, the light intensity at the image sensor is suddenly reduced, and during the removal of the ND filter from the optical path, the light intensity at the image sensor is suddenly increased due to the nature function of the ND filter. When the ND filter is already and completely on the optical path, the light intensity at the image sensor becomes stable at least at that moment. In view of the above, what is needed is compensation to the deficiency in controlling the speeds of the iris in response to a change of light intensity which is also caused by the operations of the ND filter at the image sensor in Hisama.

Mori teaches that an auto-exposure function for a video camera in which the speed of iris diaphragm is controlled based on a change of light intensity impinging on an image sensor 14 at lapse of time (Fig. 1; col. 1, line 49 – col. 2, line 5). According to Mori in **col. 5, line 60 – col. 6, line 24**, the iris speed is **increased** when condition (3) or (7) indicating that changeover of a photographing scene is met, which is equivalent to the ND filter being inserted into or being removed from the optical path (*note that change of light intensity is also a considered as a changeover of a photographing scene by virtue of electric signal output from the image sensor*), and the iris speed is **decreased** when condition (4) or (8) indicating that almost no change has occurred, which is equivalent to the ND filter is already and completely on the optical path to cause a stability of the light intensity impinging on the image sensor at the moment.

The different operating speed of iris in response to the light intensity received by the image sensor in Mori provides a stable exposure control of the video camera (col. 1, lines 42-47).

Therefore, it would have been obvious to one of ordinary skill in the art to recognize that the imaging apparatus in Hisama would be enhanced in view of the teaching of Mori by enabling

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control of operating speed of the iris, wherein the operating speed of the iris is increased in a case that the ND filter is being inserted into or being removed from the optical path, and the operating speed of the iris is decreased in a case that the ND filter is on the optical path so that a stable exposure control of the imaging apparatus is realized.

Regarding claim 2, see the analysis of claim 1.

Regarding claim 3, both Hisama and Mori show a video camera (see Hisama, Abstract; and Mori, col. 1, lines 42-47).

Regarding claim 4, also disclosed is an optical apparatus (see Hisama; Figs. 1 & 5).

Regarding claim 5, the method claim is also met by the analysis of the apparatus claim 1.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



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